still limited. This opened a new opportunity in the area of extraction of RES from biowaste.

In conclusion, although the studies about the impact of DES extraction technique are scarce, this technology is still promising for future commercial use. Also, further investigations about the coupling of different techniques and usage of biowaste as a major source of RES are still required.

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BIOFLAVOR: A REVIEW*

Keywords: bioflavor, biotransformation, food additives, sensory.

Consumers are increasingly cautious of foods and food products they consume. They want products they perceive as organic or natural as its more related to good health, leading food developers into the creation of products with better quality, nutritional composition, and biological origin. Flavour increases the palatability of a food product thereby making it an important parameter in the organoleptic evaluation of food products; while fragrance has its application in the cosmetic, chemical and the pharmaceutical industry.

Flavour is the sensory perception of food or other substances which is principally determined by the chemical senses of taste and smell. It represents over a quarter of the world's market for food additives and different compounds such as terpenes, aldehydes, lactones, esters, etc. are responsible for flavour in food. Flavour can be synthesized by chemical transformation, biotechnological transformation and through

extraction from natural sources, although chemical synthesis is the cheapest, it may require toxic catalysts or conditions for production and the compounds generated are labelled artificial.

Due to the heightened risk of consumption of food products synthesized chemically, researchers are constantly investigating different techniques needed in the production of flavours through biotechnological methods as the natural method is expensive, vigorous, time-consuming and dependent on several conditions such as the low concentration of the compound of interest, plant disease, and climatic condition.

The synthesis of flavour through biotechnological transformation (biotransformation) led to the development of bioflavor. The biotechnological methods used to produce bioflavor can be classified into three as shown in the figure below.

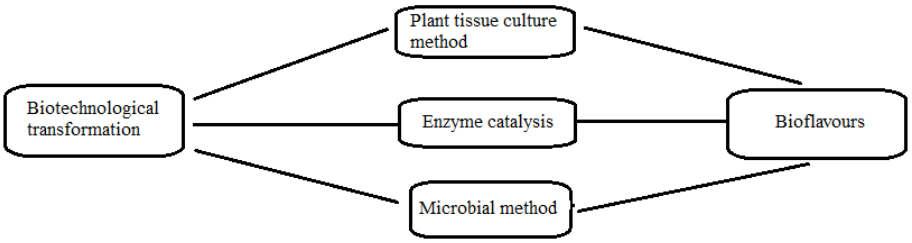

Figure 1. Paths to produce bioflavor

This review evaluates different literature materials on Bioflavor indexed in different scientific databases between 1990–2020 highlighting the development in bioflavor over the years, prospect and its economic benefits as compared to its chemical counterpart. Conclusively, bioflavor offers a more consistent product that can be incorporated into food without the fear of toxicological or carcinogenic effects when used in proper amount.

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THE POTENTIAL IMPACT OF THE MICROWAVE TREATMENT ON THE BIOTECHNOLOGICAL ASPECTS OF DAIRY PRODUCTS*

Keywords: dairy foods, properties, innovative technologies, microwave treatment, shelf life, safety.